

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS : Oleg Logvinov *et al.* CONF. NO.: 3556
SERIAL NUMBER: 10/643,316 EXAMINER : Pham, Toan Ngoc
FILING DATE : August 19, 2003 ART UNIT : 2612
FOR : **Method and System for Maximizing Data Throughput Rate in a Power
Line Communications System By Modifying Payload Symbol Length**

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Pursuant to the duty of disclosure under 37 C.F.R. §§1.56, 1.97 and 1.98, Applicants hereby make of record in this application U.S. Patent Nos. 4,715,045, 5,490,168, and 6,459,692. This Information Disclosure Statement is being filed before the mailing of a first Office Action after the filing of a request for continued examination (RCE). Accordingly, no fee or certification is required. 37 C.F.R. § 1.97(b)(4).

The cited references are listed on the attached Form PTO-1449 (submitted in duplicate). Pursuant to the U.S. Patent Office's waiver of 37 C.F.R. § 1.98(a)(2)(i), no copies of the cited references are enclosed. These references were cited in a search report in counterpart PCT Application No. PCT/US2003/025866. A copy of the search report is enclosed for the Examiner's convenience. It is respectfully requested that these references be: (1) fully considered by the Patent Office during prosecution of this application; and (2) printed on the face of any patent which may issue on this application. Applicants request that a copy of Form PTO-1449, as considered and initialed by the Examiner, be returned with the next communication to Applicants.

Applicants respectfully submit that claims 1-21, which were previously allowed by the Examiner and are currently pending in this application, are allowable over the cited references. Applicants also submit that new claims 22-40 added in the Preliminary Amendment filed concurrently herewith are also allowable over the cited references. To expedite this application to allowance, applicants provide the following distinguishing remarks. Applicants reserve the

right to provide additional distinguishing remarks at a later stage if necessary. The Examiner is urged to form his/her own conclusion regarding the relevance of the cited references.

All of independent claims 1, 16, 22 and 32 require, *inter alia*, the computing of a payload symbol length based on at least one of channel quality data and node configuration data. The independent claims also require the generating of a payload portion including at least one payload symbol of the computed length. For example, FIG. 6 of the present application shows a payload portion that includes N payload symbols, where each of the N symbols has a payload symbol length of Ts_new. According to claims 1 and 16, the generated payload portion has a fixed, predetermined length that is equal to the length or sum of the lengths of the at least one payload symbol. According to claims 22 and 32, the payload portion is generated in accordance with a second PLC signal frame structure, and the length or sum of the lengths of the at least one payload symbol contained in the generated payload portion conforms to the maximum allowable length of the payload portion of a first PLC signal frame structure.

U.S. 4,715,045: this reference refers to a power line communication system (col. 9, ll. 34-39). It also describes that packets sent from a transmitter to a receiver can have a fixed or variable length (col. 19, l. 49 to col. 20, l. 7). However, assuming (without admitting) that such a packet could be compared to the "payload portion" of the independent claims, the '045 patent does not disclose or suggest the use of computable (selectable)-length payload symbol(s) within the payload portion.

U.S. 5,490,168: this reference does not specifically disclose power line communications networks. Additionally, the '168 patent describes the use of a variable-length packet (i.e., long packet or short packet; col. 3, ll. 25-56 and FIG. 2) with fixed-length codewords (i.e., 1 millisecond). Assuming (without admitting) that such a packet could be compared to the "payload portion" of the independent claims and that such a codeword could be compared to the claimed "payload symbol", this description in the '168 patent is contrary to the requirements of claims 1, 16, 22, and 32 that the length of payload symbol is selectable based on at least one of channel quality data and node configuration data.

U.S. 6,459,692: this reference refers to power line communications (col. 3, ll. 56-59). It also describes a frame structure that includes a voice section 101 (with associated voice channels 103-N) and a "non-required" data payload portion 102 (col. 3, ll. 1-26 and FIG. 1). Assuming (without admitting) that non-required payload portion 102 could be compared to the claimed


“payload portion”, the '692 patent does not disclose or suggest selecting a payload symbol length within the payload portion based on at least one of channel quality data and node configuration data, as required by independent claims 1, 16, 22, and 32.

In view of the foregoing, applicants respectfully submit that independent claims 1, 16, 22, and 32, and corresponding dependent claims 2-15, 17-21, 23-31, and 33-40, are allowable over the cited references. Accordingly, prompt consideration of the cited references and allowance of claims 1-40 are respectfully requested.

If for any reason the Examiner decides not to allow this application based on this submission, applicants' undersigned attorney and agent respectfully request a telephonic interview with the Examiner before the issuance of the next Office Action.

Respectfully submitted,

Dated: October 27, 2006

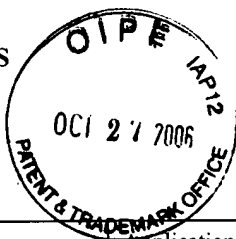


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Express Mail Label No.: EV873102121US
Date of Deposit: October 27, 2006

Attorney Docket No.: 34585-509

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| Modified Form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary) | Application Number | 10/643,316 |
| | Filing Date | August 19, 2003 |
| | First Named Inventor | Oleg Logvinov |
| | Group Art Unit | 2612 |
| | Examiner Name | Pham, Toan Ngoc |
| | Attorney Docket Number | 34585-509 |

U.S. PATENT DOCUMENTS

| Exam Initials | Cite No. | U.S. Patent Document No. | Issue Date | Name of Patentee(s) or Applicant(s) | Class | Sub Class | Filing Date If Appropriate |
|------------------|-------------|-----------------------------|-------------------|---|-------|-----------|-------------------------------|
| | A1 | 4,715,045 | December 22, 1987 | Lewis, et al. | | | |
| | A2 | 5,490,168 | February 6, 1996 | Phillips, et al. | | | |
| | A3 | 6,459,692 | October 1, 2002 | Ben-Michael, et al. | | | |

U.S. PUBLISHED APPLICATION DOCUMENTS

| Exam Initials | Cite No. | U.S. Published Application No. | Published Date | Name of Patentee(s) or Applicant(s) | Class | Sub Class | Filing Date If Appropriate |
|------------------|-------------|-----------------------------------|-------------------|--|-------|--------------|-------------------------------|
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FOREIGN PATENT DOCUMENTS

| Exam Initials | Cite No. | Foreign Patent Office | Document Number | Name of Patentee(s) or Applicant(s) | Date of Publication | Translation Yes No |
|------------------|-------------|-----------------------------|--------------------|-------------------------------------|------------------------|-----------------------|
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OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

| Exam Initials | Cite No. | Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc. |
|-----------------------|-------------|--|
| | | |
| Examiner Signature | | Date Considered |

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

NYC 374368v.1